Preceding the general alphabetical authors' list of books, which constitutes the great bulk of the book, is a list of the bibliographical authorities consulted, this list numbering a hundred and twelve entries, covering twenty-six pages. This list, being one subordinate to the general purpose for which the book is to be used, might go in a subordinate or smaller type, thus saving in two ways; to wit, in the space occupied, and in showing by the type itself that the list was subordinate to the main body of the work. In the very full index at the close of the book, and which constitutes the subject-catalogue, this plan is followed with good effect, and a complete subject-catalogue of Indian linguistics is thus printed on forty-five closely printed pages.

The serial numbers which accompany each title, and which are printed on the left, would interfere less with the catch-word of the title if transferred to the right; and the catch-word, the author's name, might then advantageously be brought to the left, a little beyond the line of the text. These detailed matters of printing here introduced and commented upon, though in general uncalled for, are pertinent to the present notice, since these are proof-sheets, and hence the finally adopted form is presumably not yet settled. Moreover, these questions admit of a more intelligent and satisfactory settlement from the existence in print of this material, which might, perchance, be denominated "Proof-sheets of material collected with a view of constructing an exhaustive bibliography of the languages of the native races of North America." This would seem to be a tolerably precise characterization of both the book and the author's conception of it. The term 'Indian' on the titlepage is of course used to include all native races, Eskimo, Aztecs, etc. Whether the word should be so used, is a matter for the ethnographer rather than the bibliographer.

The size of the work, and the fact that while going through the press two hundred and fifty pages of additions and corrections accumulated, show the importance of considering whether finally it will not be better to break this bibliography up into several subdivisions, so that, instead of having a very large bibliography of North American linguistics, we may have a more useful work, consisting of several parts, each devoted to a special group of languages, such as Algonkin, Eskimo, etc. All bibliographies should provide for growth. In any very comprehensive one, the first part begins to be antiquated before the last part is reached. Moreover, bibliographies, if of comparatively small subjects, can be revised, and kept up to date; but it is a formidable undertaking to revise, enlarge, and bring up to date, a work so large as this.

As the present tendency is pronouncedly in the direction of full bibliographies of small subjects, the most important question to be considered in the publication of this work would seem to be as to whether it should be one single bibliography of a very large subject, or a series of bibliographies of a number of small subjects.

Would it be better to prepare a bibliography of mathematics, or a series of bibliographies, on the different subdivisions of mathematics? And in meteorology will the signal service best serve the meteorological public by issuing one grand bibliography of meteorology, covering the entire field, or by subdividing into various heads, such as 'observations,' 'instruments,' 'theories,' etc., and issuing smaller bibliographies, covering the more limited fields? It is not our purpose to discuss these questions, but, rather, to sharply draw attention to them for the purpose of having them well considered before a final form is adopted.

The author is, in our opinion, to be congratulated upon selecting the form of an authors' catalogue rather than the subject-catalogue. The authors' catalogue admits practically of but a single arrangement, — the alphabetic, — since in any large list the chronological order proves of far less general utility.

The subject-catalogue, however, admits of several arrangements: it is always subject to radical changes based upon increased knowledge or new and revised systems of classification; and, lastly, to use a subject-catalogue, the system of classification used in that particular catalogue must be studied. It therefore seems far wiser, as Mr. Pilling has done, to make the index serve as the subject-catalogue.

DISEASES OF THE FORE-BRAIN.

THE scope of this work is indicated in its title. It is an attempt to explain both the nature of mental action and the perversions of that action from the data of the anatomist and the pathologist. Professor Meynert has no superior in Europe in the department in which he has written. To him anatomists owe much that is new and important in the knowledge of the structure of the brain. It is to be expected, therefore, that the results of his life-work should be regarded with great interest. In a comparatively small

Psychiatry: a clinical treatise on diseases of the fore-brain, based upon a study of its structure, functions, and nutrition. Part i. By THEODOR MEYNERT, M.D. Tr. by B. Sachs, M.D. New York, *Putnam*, 1885. 8°.

compass he has given an exhaustive description of the masses of gray matter and intricate network of white fibres of which the brain consists; and he has done this from the stand-point of a comparative anatomist, which greatly enhances the values of his statements. There is such rapid progress being made in the department of nervous diseases, that it is perhaps not surprising that a few of the positions held by the author will need to be modified in the second volume: in fact, he admits this in his preface. But the great mass of the facts stated in the text are fixed and definite, and must be familiar to all future investigators in this field.

To the general reader the physiological portion of the volume will be much more attractive than its anatomical details. Here, again, Meynert is worthy of attention. It is pretty generally admitted that the method of introspection so long advocated by psychologists is incapable of giving satisfactory results in the investigation of those processes in which mind and matter meet: hence of late years new methods have been sought. One of these is to study the mental processes as they develop in the infant, and to watch the manner in which ideas are acquired and voluntary powers become available. This method has been employed by Preyer and Kussmaul in Germany, and by Dr. Mary Putnam Jacobi in this country. Meynert has made use of it to some extent in discussing the manner in which knowledge is acquired and stored up, and in which the various memories gained through the senses are associated. For example: if a pin touches the eye of an infant, the lid closes. This is a reflex act carried out by a simple mechanism independent of any act of consciousness; but, coincident with the reflex act, a number of impulses are sent to the brain, along fibres which, on reaching the cortex, give rise to the conscious perception of the appearance of the pin, of the pain of the prick, and of the motion which has been performed. Each of these perceptions occurs in a different part of the brain, since each sensory organ is joined to an area of its own. But the three perceptions occur simultaneously; and, as all parts of the cortex are joined with one another by fibres passing from one area to the next, the three perceptions are associated both in perception and in memory: hence, when the pin is seen again, the memory of the pain arises, and the memory of the motion which stopped the pain; and thus the mere sight of the pin leads the child to close the eye. The perception of the reflex motion has given the infant the knowledge of the possession of a muscle capable of movement; and the motion, having once become conscious, can be reproduced voluntarily by an effort which excites to action those cells which retain the memory of the motion (pp. 156–161).

A second method of psychological investigation is that of experimental physiology. This is open to the objection that many acts of animals are misinterpreted by physiologists, who look at many of the acts as manifestations of voluntary mental action instead of being instinctive. The differences of those who advocate or oppose the localization of functions as deduced from experiments are to be traced rather to their varying interpretations of the result of the experiments than to those results themselves. Meynert is a believer in the localization of functions, as is every physician who has seen much of brain-diseases, and he presents clearly the arguments in its favor derived from the investigations of Fritsch and Hitzig and Munk. A third means of studying the relations of mind and matter is the consideration of individuals who present disturbances of mind associated with definite forms of destruction of brain-tissue. Meynert's opportunities for such study are very great, as he has at his disposal the immense number of patients collected in the Vienna hospital. That he has made good use of his material is evident in the sections of this work which treat of the functions and nutrition of the brain. In the next volume this part of the work will be fully expanded. By means of these three methods much that is new and entertaining has been found in the physiology of thought, and much that is important both to the alienist and to the psychologist is brought forward. The book, therefore, appeals to a rather wider circle of readers than its title would indicate.

Those who have read the original will sympathize with the translator in the difficulties of his work. It is a misfortune of the author that he is at points exceedingly abstruse and even obscure; and this fact, as well as the very technical style of the original, has rendered the task undertaken a serious one. It has been done in a painstaking manner, the original being followed as closely as possible, without, at the same time, taking from the English its own construction and idiom. The translation has been made with the consent of the author and by one of his pupils. It is evident that he has labored hard, although in some places the meaning is difficult to grasp. This difficulty is to be traced to the original, as can be determined by a comparison of the two, and hence must not be laid at the door of the translator. The manner in which the publishers have presented the volumes is to be commended, no expense having been spared in reproducing the many valuable diagrams and illustrations of the original.

M. A. S.